

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL WITH STREET LIGHTING AT THE INTERSECTION OF MD 253 AND WASHINGTON ST. IN ANNE ARUNDEL COUNTY. MD 253 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

THIS WORK IS NECESSITATED BY THE RECONSTRUCTION OF WEST LEG OF THE INTERSECTION.

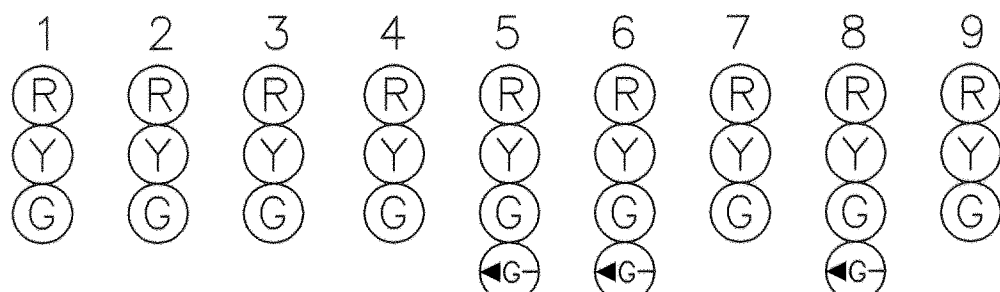
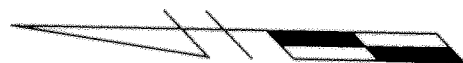
INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH THE MD 253 APPROACHES OPERATING CONCURRENTLY AND THE WASHINGTON ST. APPROACHES OPERATING AS SPLIT PHASES.

CONTROLLER REQUIREMENTS

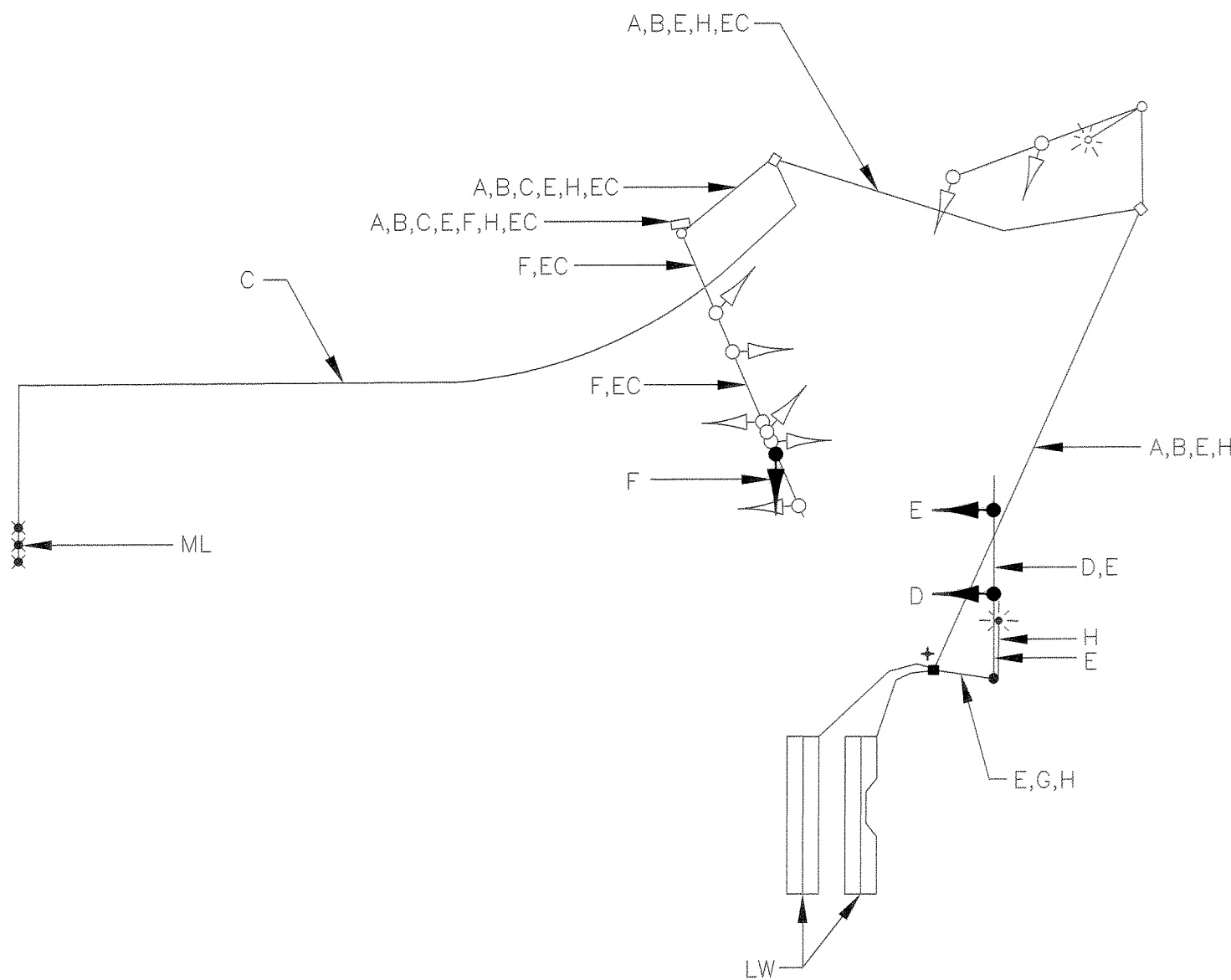
THE EXISTING FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER HOUSED IN A POLE MOUNTED WILL BE USED. INSTALL ONE - 4-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER.

PHASE CHART



PHASE 2 + 6	G	G	G	G	R	R	R	R	R	
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	R	R	
PHASE 3	R	R	R	R	G	G	G	G	G	
3 CHANGE	R	R	R	R	Y	Y	Y	Y	Y	
PHASE 4	R	R	R	R	R	R	R	R	R	
4 CHANGE	R	R	R	R	R	R	R	R	R	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	

WIRING DIAGRAM



WIRING KEY

- A } 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) NO. 14 A.W.G.
- C } MICRO-LOOP PROBE LEAD-IN
- D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- G } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- H } 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE

- ML } MICRO-LOOP PROBE
- LW } LOOP WIRE (NO. 14 A.W.G.)
- EC } EXISTING CABLE
- + } 3/4 IN. X 10 FT. GROUND ROD

TRAFFIC CONCEPTS, INC.

Brightview Business Center
8258 Veterans Highway
Suite 19B
Millersville, MD 21108
(410) 987-0427

REVISIONS	APPROVALS
	ASSISTANT DIVISION CHIEF
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENG. DESIGN DIV.
	DIR., OFFICE OF TRAFFIC & SAFETY

EQUIPMENT LIST

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	1 C.Y.	TEST PIT EXCAVATION
5010	120 L.F.	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKINGS
5011	4 EACH	THERMOPLASTIC PAVEMENT MARKING LETTER
5012	2 EACH	THERMOPLASTIC PAVEMENT MARKING ARROW
8001	5 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8006	1 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8016	1 EACH	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
8021	640 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8023	25 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE CONDUIT FOR DETECTOR SLEEVE
8024	15 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8032	100 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	1 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	1 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8040	900 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	470 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
8044	25 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
8045	400 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 A.W.G.)
8046	300 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 12 A.W.G.)
8049	20 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8052	30 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS - 4 IN. X 6 IN.
8056	1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8057	1 EACH	FURNISH AND INSTALL LIGHTING BRACKET FOR TRAFFIC SIGNAL STRUCTURE -1 EACH - 15 FT. LENGTH
8081	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND 38 FT MAST ARM
---	2 EACH	FURNISH AND INSTALL 12 IN., ONE-WAY, THREE-SECTION (R,Y,G.) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
---	1 EACH	12 IN., ONE-WAY, FOUR-SECTION (R,Y,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
---	60 S.F.	FURNISH AND INSTALL SHEET ALUMINUM SIGNS TO CONSIST OF : <ul style="list-style-type: none">1 EACH D3-2 STREET NAME SIGN (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT2 EACH R3-7(R) SIGN (30 IN. X 30 IN.) - GROUND MOUNT1 EACH R3-5(R) SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT1 EACH SHIELD ASSEMBLY "NORTH-MD 253-LEFT ARROW" (36 IN. X 72 IN.) - GROUND MOUNT1 EACH SHIELD ASSEMBLY "SOUTH-MD 253-RIGHT ARROW" (36 IN. X 72 IN.) - GROUND MOUNT
8061	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
---	1 EACH	FURNISH AND INSTALL 4-CHANNEL TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIER
---	2 EACH	RE-AIM TRAFFIC SIGNAL HEAD

NOTE: ITEM NUMBERS CORRESPOND TO MSHA AREA WIDE CONTRACT



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 253 AND WASHINGTON ST.

DATE: 9-1-98	DRAWN BY: T. ZAYDEL	F.A.P. NO.	PLAN SHEET NO.:	SHEET NO.
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO.	TS-3477BGI	2 OF 2
APPROVED BY: T. ZAYDEL	CHECKED BY: K. SCHMID	COUNTY: ANNE ARUNDEL		